

# Long-billed Curlew Survey Codes

## Sky Codes

- 0 Clear or few clouds
- 1 Partly cloudy
- 2 Cloudy (broken, overcast)
- 3 Rain
- 4 Fog or smoke
- 5 Drizzle
- 6 Snow
- 7 Showers (intermittent rain)

## Topography

- F Flat
- R Rolling
- P Pocketed

## Beaufort Wind Scale

- 0 Smoke rises vertically (<1 mph)
- 1 Wind direction shown by smoke drift (1-3 mph)
- 2 Wind felt on face, leaves rustle (4-7 mph)
- 3 Leaves, twigs in motion; light flag extended (8-12 mph)
- 4 Dust, loose paper blow; small branches in motion (13-18 mph)
- 5 Small trees sway, wavelets on water (19-24 mph)

## Vegetation Height

<u>Category</u>	<u>Height</u>	<u>In relation to LBCU</u>
1	bare ground-4 cm (1 1/2 in)	can see foot
2	4-10 cm (4 in)	covers foot to "knee"
3	10-15 cm (6 in)	up to base of belly
4	15-45 cm (17 1/2 in)	up to back
5	45-65 cm (25 in)	up to eye level
6	≥ 65 cm (25 in)	above head

## Species Codes

LBCU	Long-billed Curlew
NONE	Nothing seen

## Incidental Species Codes

MOUP	Mountain Plover
WILL	Willet
UPSA	Upland Sandpiper
MAGO	Marbled Godwit
SEOW	Short-eared Owl
BUOW	Burrowing Owl
LPCH	Lesser Prairie-Chicken
GPCH	Greater Prairie-Chicken
STGR	Sharp-tailed Grouse
GSGR	Greater Sage-Grouse
CANLA	Coyote
VULVU	Red Fox
VULVE	Swift/Kit Fox
UROC	Gray Fox
TAXTA	American Badger
MEPME	Striped Skunk
PROLO	Raccoon

## LBCU Age & Sex Codes

AHY	after hatch year (adults)
HY	young of the year
DY	downy young

M	male
F	female
U	unknown sex

## LBCU Flock Codes

- 1 Single
- 2 Pair
- 3 Flock: more than 1 bird and/or more than one obvious pair

## LBCU Activity Codes

FE	Feeding: Actively pursuing food
R	Roosting: Actively roosting (eyes closed, one leg up, head under wing, etc.)
FO	Flying overhead: passing over area, not involved in territorial displays or other behaviors
T	Territorial displays: encounters between 2 or more LBCU, mate advertisement
N	Nesting: Includes copulating, scrape/nest building, egg laying, incubation, brooding young
D	Distraction displays: aerial or ground displays associated with nesting or young defense
M	Mobbing: specify observer, raptor, etc.

## Habitat Codes

On Habitat Data Sheet: estimate the % (in increments of 25% or greater) in broad habitat classification categories by quarters (NE, NW, SE, SW) within the 400 m radius of the stop point. Record up to four (4) primary habitat codes in each quadrant and include all appropriate secondary codes and habitat conditions where they are easily determined. On the Survey Data Sheet: use the code which best describes the habitat being occupied by the LBCU, at first detection, within a 5-m radius of where the bird is located.

Primary Codes	
<b>GRAS</b>	grasslands
<b>RCWS</b>	rural cultivated woodlands, scattered farm buildings, associated grounds, shelterbelts, orchard tree farms
<b>CROP</b>	cropland, planted growing crops, post-harvest stubble
<b>BARE</b>	barren ground, plowed not yet replanted, planted not yet growing
<b>WEED</b>	weedy fields; former grasslands, forb dominated fields
<b>SHRB</b>	shrubs clumped
<b>STEP</b>	steppe, widely dispersed shrubs with $\geq 50\%$ grass
<b>WOOD</b>	woodlands
<b>EMWL</b>	wetlands/wet meadows
<b>OWWL</b>	open water wetlands, rivers, lakes, reservoirs, irrigation canals
<b>STOK</b>	stockpond, windmill
<b>OTHR</b>	urban residential and industrial miscellaneous
<b>UNKN</b>	cannot see due to topography or other visual obstructions

Secondary Codes	
<i>Grasslands</i>	<i>Other</i>
<b>NTPA</b> native prairie	<b>URCP</b> urban residential and parks
<b>PAST</b> non-native, tame pasture/rangelands	<b>UIND</b> urban industrial, downtown, commercial districts
<b>CRPC</b> Conservation Reserve/ Permanent Cover Program	<b>ROCK</b> rocks
<b>SHTG</b> shortgrass prairie: blue gramma-buffalo grass, includes cactus and small shrubs	<b>OILP</b> mining pits, oil wells/pipes
<b>MIXG</b> mixed grass prairie: wheatgrass-needlegrass	<b>HPLT</b> high power tension lines/poles
<b>TALG</b> tallgrass prairie: wheatgrass-bluestem, needlegrass	<b>FLOT</b> feedlot
<b>TUND</b> alpine tundra and montane grasslands	<b>MISC</b> miscellaneous: specify
<i>Shrublands</i>	
<b>SAGE</b> sagebrush <i>Artemisia-Agropyron</i>	
<b>SALT</b> saltbrush-shadescale-greasewood <i>Atriplex-Sarcobatus</i> alkaligrass	
<b>OAKS</b> oak shrub <i>Quercus gambelli</i>	
<b>MTSG</b> mountain shrublands mixed species <i>Cercocarpus</i>	
<b>WILC</b> highland willow carr <i>Salix</i>	
<i>Woodlands</i>	
<b>CONF</b> conifer forest	
<b>RIPA</b> lowland riparian and hardwood bottomland <i>Populus-Salix-Acer</i>	
<b>ASPE</b> aspen <i>Populus tremuloides</i>	
<b>DECW</b> deciduous woodlands	
<b>MXFO</b> mixed deciduous-conifer woodland	
<i>Wetlands</i>	
<b>EPHW</b> ephemeral/temporary ponds, wetlands, low wet prairie	
<b>SPLW</b> semipermanent lakes and ponds, shallow marshes	
<b>PLPW</b> permanent lakes and ponds, deep marsh	
<b>AKLW</b> alkali ponds & lakes, intermittent alkali	
<b>FENW</b> fen (alkaline) bog, wet meadow	

Tertiary Grassland Codes	
<i>Grassland foliage structure: don't include seedheads</i>	
<b>SHRT</b>	short grass, < 5" / < 12cm
<b>MEDM</b>	mid grass, 5-15" / 12-38cm
<b>TALL</b>	tall grass, >15" / > 38cm

Habitat Conditions	
<i>Management tool</i>	
<b>GRAZ</b>	grazed (cattle currently on, fresh pies)
<b>BURN</b>	burned (presence of ash or soot, black ground)
<b>MCUT</b>	mechanically cut: mowed, hayed
<b>IR</b>	irrigated grasslands, croplands, etc.
<b>DY</b>	dryland cropland, tame pastures
<i>Invasive species</i>	
<b>INVA</b>	invasive species, particularly grasses, e.g. cheat grass ( <i>Bromus tectorum</i> ), Kentucky blue-grass ( <i>Poa pratensis</i> ), other bromes ( <i>Bromus</i> spp.), etc. Indicate species and estimate %
<i>Burrowing mammals</i>	
<b>PDOG</b>	prairie dog town
<b>RGSQ</b>	Richardson's ground squirrel
<b>AC</b>	active town (# mounds total)
<b>IA</b>	inactive town (# mounds total)